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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 09/919,614 | 08/01/2001 | Soon-Sung Yoo | 053785-5023 | 2482 |

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EXAMINER

STEVENSON, ANDRE C

ART UNIT

PAPER NUMBER

2812

DATE MAILED: 05/09/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/919,614

Applicant(s)

YOO ET AL.

Examiner

Andre' C. Stevenson

Art Unit

2812

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☐ Claim(s) ____ is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 3-6 is/are allowed.
- 6) ☒ Claim(s) 1 and 2 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claims ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are objected to by the Examiner.
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).
- a) ☐ All b) ☐ Some * c) ☐ None of the CERTIFIED copies of the priority documents have been:
1. ☐ received.
2. ☐ received in Application No. (Series Code / Serial Number) ____.
3. ☐ received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

- 14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. & 119(e).

Attachment(s)

- 15) ☒ Notice of References Cited (PTO-892)
- 16) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 17) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) ____.
- 18) ☐ Interview Summary (PTO-413) Paper No(s). ____.
- 19) ☐ Notice of Informal Patent Application (PTO-152)
- 20) ☐ Other: .

DETAILED ACTION

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1 & 2 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kijima et al (U.S. Pat. No.6259500 B1).

Kijima et al (U.S. Pat. No.6259500 B1), for **Claim #1**, a method of fabricating a liquid crystal display device having first and second substrates, the method comprising the steps of: forming a gate line on the first substrate; sequentially forming a first insulating layer, an amorphous silicon layer, and a metal layer on the first substrate; patterning the metal layer to form a data line; forming a second insulating layer on the data line (**column 10, lines 29 through 37**); patterning the second insulating layer and the amorphous silicon layer to form a passivation layer and an active layer, respectively; forming a pixel electrode at a pixel region defined by the gate and data lines; (**column 8, lines 63 through 67, column 9, lines 1 through 22**) assembling the first substrate and the second substrate having a black matrix thereon, wherein the black matrix vertically overlaps at least one boundary line defined by different exposures during step-and-repeat exposure processes; and forming a liquid crystal layer between the first

and second substrates (**Fig. 8a & b, column 14, lines 42 through 50, column 15, lines 32 through 39**).

With respect to **Claim #2**, a method of claim 1, wherein the boundary line is disposed over the gate line and the data line, is taught by Kijima et al (U.S. Pat. No.6259500 B1) (column 4, lines 20 through 34).

Allowable Subject Matter

The following is an examiner's statement of reasons for allowance: The prior art fails to teach forming an insulating layer on the amorphous silicon layer including the data line; forming a photoresist layer having first, second, and third portions on the insulating layer, wherein the first portion has a thickness greater than the second portion, and the third portion exposes a portion of the insulating layer; selectively removing the insulating layer and the amorphous layer to form a passivation layer on the data line and an active layer below the data line.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Claims #3 through 6

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- ➤ Forming an insulating layer on the amorphous silicon layer including the data line; forming a photoresist layer having first, second, and third portions on the insulating layer, wherein the first portion has a thickness greater than the second portion, and the third portion exposes a portion of the insulating layer; selectively removing the insulating layer and the amorphous layer to form a passivation layer on the data line and an active layer below the data line.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Andre' Stevenson whose telephone number is (703) 308 6227. The examiner can normally be reached on Monday through Friday from 7:30 am to 4:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Niebling, can be reached on (703) 308 3325. The fax phone number for the organization where this application or proceeding is assigned is (703) 308 7724.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308 0956. Also, the proceeding numbers can be used to fax information through the Right Fax system;


- TC2800 Official Before-Final RightFAX - **(703) 746-8802**
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John F. Niebling
Supervisory Patent Examiner
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Andre' Stevenson

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04/30/03